

WHAT IS CLAIMED IS:

1. An apparatus, comprising:

- 5 (a) a first permeable membrane defining a bag and having a first opening, an interior space and a plurality of fine openings in said first permeable membrane communicating said interior space with the exterior of said permeable membrane, wherein said first opening further comprises an inlet; and
- (b) one or more applications of chitosan located within said bag.

10 2. The apparatus of Claim 1, wherein at least one application of chitosan comprises a gel form.

15 3. The apparatus of Claim 2, wherein said gel form of chitosan comprises one or more bars, said one or more bars being placed into a permeable fabric sock, wherein said fabric sock is connected to an inner surface of said first permeable membrane or inlet.

20 4. The apparatus of Claim 1, wherein said inlet defines a spout extending outwardly from said bag.

25 5. The apparatus of Claim 4, further comprising a fabric sock containing one or more applications of a gel form of chitosan, said sock being attached to or near an inner surface of said spout.

6. The apparatus of Claim 5, whereby said sock is attached to an inner surface of said spout such that the sock becomes suspended horizontally within said spout during a substantial incoming fluid flow.

30 7. The apparatus of Claim 1, wherein said first permeable membrane comprises a non-woven geotextile fabric.

8. The apparatus of Claim 1, further comprising:
- (c) a second opening in said bag, said second opening further comprising an outlet.
- 5 9. The apparatus of Claim 8, wherein said outlet defines a sealable spout extending outwardly from said bag.
10. The apparatus of Claim 1, further comprising:
- 10 (c) a zipper traversing one or more outer edges of said bag, whereby at least a portion of the top of said bag may be distanced apart from a portion of the bottom of said bag while said zipper is unzipped.
11. The apparatus of Claim 1, further comprising:
- 15 (c) a second permeable membrane connected to said first permeable membrane and defining at least a portion of said bag, said second permeable membrane having a plurality of fine openings communicating at least a portion of said interior space with the exterior of said permeable membrane, whereby the permeability rate of said second permeable membrane is different from the permeability rate of said first permeable membrane.
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12. The apparatus of Claim 11, wherein said second permeable membrane comprises a woven geotextile fabric having a permeability rate greater than that of said first permeable membrane.
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13. The apparatus of Claim 11, further comprising:
- (d) a baffle wall located inside said bag and extending from one side of said bag to an opposing side, whereby said baffle wall separates said interior space into a first interior space and a second interior space, said baffle wall comprising one or more openings communicating said first interior space with said second interior space.
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14. The apparatus of Claim 13, wherein said inlet directs fluid into said first interior space and said second permeable membrane passes fluid out of said second interior space.
- 5 15. The apparatus of Claim 13, wherein the sum of the cross-sectional areas of said one or more openings in said baffle wall is substantially similar to the cross-sectional area of said inlet.
- 10 16. The apparatus of Claim 13, wherein the sum of the cross-sectional areas of said one or more openings in said baffle wall is smaller than the cross-sectional area of said inlet.
- 15 17. The apparatus of Claim 13, wherein said baffle wall is integrally formed with said first permeable membrane.
18. A dewatering bag capable of removing silt, sedimentation and suspended solids from incoming water, comprising:
- 20 (a) a first permeable membrane defining a bag and having a first opening, an interior space and a plurality of fine openings in said first permeable membrane communicating said interior space with the exterior of said permeable membrane, wherein said first opening further comprises an inlet defining a spout extending outwardly from said bag;
- 25 (b) a fabric sock containing one or more bars of chitosan gel, said fabric sock being connected to an inner surface of said bag or inlet spout;
- (c) a second permeable membrane connected to said first permeable membrane and defining at least a portion of said bag, said second permeable membrane having a plurality of fine openings communicating at least a portion of said interior space with the exterior of said permeable membrane, whereby the permeability rate of said second permeable
- 30 membrane is greater than the permeability rate of said first permeable membrane;
- (d) a baffle wall located inside said bag and extending from one side of said bag to an opposing side, whereby said baffle wall separates said interior

space into a first interior space and a second interior space, said baffle wall comprising one or more openings communicating said first interior space with said second interior space, wherein said inlet directs fluid into said first interior space and said second permeable membrane passes fluid out of said second interior space.

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19. The apparatus of Claim 18, further comprising:

- (e) a second opening in said bag, said second opening further comprising an outlet, wherein said outlet defines a sealable spout extending outwardly from said bag.

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20. The apparatus of Claim 18, further comprising:

- (e) a zipper traversing one or more outer edges of said bag, whereby at least a portion of the top of said bag may be distanced apart from a portion of the bottom of said bag while said zipper is unzipped.

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